

California Coastal Cleanup Day

How Data Helped the Cleanup become the
State's Biggest Volunteer Event



CALIFORNIA
COASTAL
COMMISSION

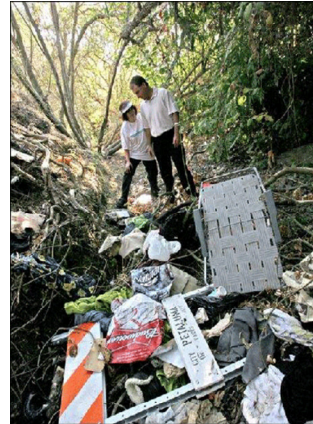
California Coastal Cleanup Day

Coastal Cleanup Day engages people to **remove trash** and debris from California's beaches and inland waterways, to **identify the sources** of the debris, and to **change the behaviors that cause pollution**.



California Coastal Cleanup Day (CCD) is one way to combat against the rising number of trash and litter on our beaches and shorelines. CCD is an annual beach and shoreline cleanup event that engages tens of thousands of people every year and encourages them to think about litter and how we all can play a part in developing solutions.

Marine Debris



Marine debris is defined as “any manufactured or processed solid waste material that enters the marine environment from any source.”

Debris is everywhere – found around every major body of water on the planet, and below water as well.

Marine Debris is a global pollution problem that impacts human health and safety, endangers wildlife and aquatic habitats, and costs local & national economies millions in wasted resources and lost revenues.

Impacts on Human Health



Marine debris is a problem for many reasons. First, these hazardous items present a danger to human health. Nails, glass, syringes on the beach can cause physical harm to beach-goers. Additionally, trash in our waterways increases the amount of pathogens and chemicals in the water, leading to water quality issues.

Impacts on Economy



Photo Credit: Ocean Conservancy

Marine debris is also a hazard to California's economic health. Fishing line and nets can entangle propellers causing damage to boats. Unsightly trash on the beaches detracts from tourism. The Asia-Pacific Economic Cooperation released a report valuing different marine debris abatement measures and found that the loss of tourism from littered beaches in APEC region was \$622 million/year. The damage to Fishing Industry totaled \$364 million/year. The damage to the shipping industry was \$279 million/year, and the total cost of marine debris on APEC Region totaled 1.265 billion/year.

* APEC Region does not include California, but an estimate can be drawn from the comparison. The APEC Region has a \$207 billion marine economy; California has a \$46 billion marine economy.

Impacts on Wildlife



36% of green sea turtles washed up on shores of Australia died from marine debris.

In Puget Sound, more than 200,000 marine animals, representing over 200 species, were killed as by-catch since 2002.

“Average” Fulmar in the North Sea flies around with 0.6 grams of plastic in its stomach. Equates to 30 grams of plastic in human-size stomach – basically a full lunchbox!


Increasing evidence of transfer of toxic, endocrine-disrupting chemicals from plastics in the marine environment to tissues of animals that feed on them.

100% of Laysan Albatross Impacted (NOAA)

Laysan Albatross live on islands of the Northwest Hawaiian Island Chain (Midway Atoll), a very remote location. They scavenge for food on the ocean's surface. Adults find and eat brightly colored plastic, mistaking it for food, then feed it to their young. 100% of Laysan Albatross carcasses found on Midway Atoll had plastic in their stomachs.

Coastal Cleanup Day 2013

New Data Cards

VOLUNTEER OCEAN TRASH DATA FORM 

Ocean and wetland trash-litter is one of the most serious pollution problems choking our planet. For more than an episode, a rising tide of marine debris threatens human health, wildlife, coral reefs and ecosystems around the world. The ocean faces many challenges, but trash should not be one of them. Ocean trash is entirely preventable, and data you collect are part of the solution. The International Coastal Cleanup is the world's largest volunteer effort to combat ocean and wetland trash.

HERE IS HOW IT WORKS:


1. CLEAN UP TRASH & COLLECT DATA
2. ORGANIZE & ANALYZE DATA
3. PUBLISH RESULTS
4. REDUCE OUR IMPACT

SITE INFORMATION:

Cleanup Site: _____ Date: _____
 Name: _____ County: _____
 Address: _____
 City: _____

NUMBER OF VOLUNTEERS WORKING ON THIS SITE:
 Adults: _____ Children: _____

NOTE: UNUSUAL ITEM COLLECTED: _____ **TYPE OF CLEANUP:** ☐ Local ☐ National ☐ Other



Please print this form and your results. For a complete list of items that we want to see, please visit www.oceanconservancy.org/cleanup. For more information, visit www.oceanconservancy.org. Thank you for your participation in this important effort to protect our oceans.

TRASH COLLECTED Criteria established: Pick up all trash and record all items you find below. No matter how small the items, the data you collect are important for Trash Free Beach.

PLEASE DO NOT use words or check marks. Only numbers are used for data.

EXAMPLE: Plastic Bottle: 4447 111

NO. OF ITEMS TO FIND (TOTAL): _____ **TOTAL 1**

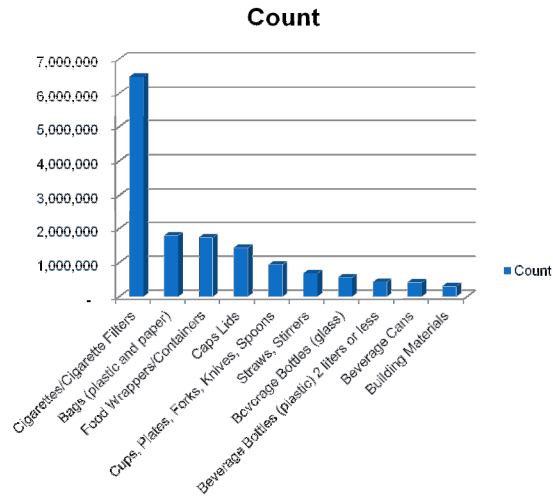
Cigarette Butts	00	Beverage Bottle Plastic	00
Food Wrappers (crisp, chips, etc.)	00	Beverage Bottle Glass	00
Take Out/Carry Out Containers Plastic	00	Beverage Can	00
Take Out/Carry Out Containers Paper	00	Garbage Bag Plastic	00
Bottle Cap Plastic	00	Other Plastic Bags	00
Bottle Cap Metal	00	Flower Bag	00
Leaf Printer	00	Cup & Poles Plastic	00
Shower/Gel	00	Cup & Poles Glass	00
Flake, Nails, Cans, Caps	00	Cup & Poles Paper	00
TOTAL 2	TOTAL 3	TOTAL 4	TOTAL 5
NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____
Fishing Bait, Plastic Trap	00	Fluffy Material	00
Fishing Net & Plastic	00	Other Plastic/Foam Packaging	00
Rope (1 continuous = 1 piece)	00	Other Plastic Bottle (not beach, etc.)	00
Fishing Line (1 continuous = 1 piece)	00	Shopping Bag	00
TOTAL 6	TOTAL 7	TOTAL 8	TOTAL 9
NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____
Appliances (refrigerator, washer, etc.)	00	PS. SPECIAL ATTRACTION	00
Batteries	00	Condition	00
Car Tire	00	Diagnosis	00
Cigarette Lighter	00	Symptoms	00
Construction Materials	00	Temporary/Permanent Application	00
Fireworks	00		
Tools	00		
TOTAL 10	TOTAL 11	TOTAL 12	TOTAL 13
NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____
Flame Retardant	00	Other Plastic/Foam Packaging	00
Glass Bottle	00	Other Plastic Bottle (not beach, etc.)	00
Plastic Bottle	00	Shopping Bag	00
TOTAL 14	TOTAL 15	TOTAL 16	TOTAL 17
NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____	NO. OF ITEMS TO FIND (TOTAL): _____
CLEANUP SUMMARY (circle units)	CLEANUP SUMMARY (circle units)	CLEANUP SUMMARY (circle units)	CLEANUP SUMMARY (circle units)
Number of Trash Bags Filled	Weight of Trash Collected	Number of Items Collected	Number of Items Collected

The Ocean Conservancy has created a new data card for us to use. Some things to note are:

- On the FRONT, unnecessary demographic information was deleted. Now the card simply asks for site information, which you can pre-fill to make things move quicker at the Cleanup.
- The FRONT now contains educational and instructional information addressing how to fill out the card and what the data will be used for.
- The BACK is organized more intuitively. The first section is titled, “Most Likely to Find Items”
- The BACK considers material type, i.e. “Bottle Cap (plastic)” is one field and “Bottle Cap (metal)” is another.
- The BACK has a category for “Tiny Trash” like microbits of plastic, foam and glass.
- On the BACK the lines are located to the right with the tally box to the right of that, making it more clear that we are asking for a total number, and not a check box.
- Some less common items were removed, based on feedback.
- The data card does not have a field for paper and aluminum scraps. For these and other items you know to be a problem at your sites, you can write them in if you’d like to keep count.

Coastal Cleanup Day Data 1989-2012

Top Ten 1989-2012	Count	Percentage
Cigarettes/ Cigarette Filters	6,489,979	39.4%
Bags (plastic and paper)	1,601,430	10.5%
Food Wrappers/ Containers	1,745,634	10.6%
Caps and Lids	1,155,417	6.70%
Cups, Plates, Forks, Knives, Spoons	941,034	5.71%
Straws, Stirrers	664,445	4.15%
Beverage Bottles (glass)	564,135	3.42%
Beverage Bottles (plastic) 2 liters or less	426,288	2.60%
Beverage Cans	421,648	2.58%
Building Materials	308,610	1.87%



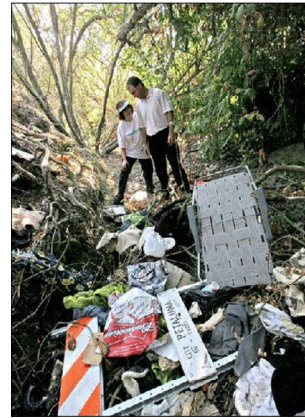
Approximately **20%** comes from
ocean-based sources



Photo Credit: NOAA Marine Debris Program , Ocean Conservancy

Many people assume that if trash exists in the ocean, it must be that fishermen and the shipping industry is to blame. But in fact, only 20% of the items found in the ocean can be linked to ocean-based sources, like commercial fishing vessels, cargo ships (discharge of containers and garbage), or pleasure cruise ships.

Approximately **80%** comes from
land-based sources



The remainder (80%) is due to land-based sources, like litter (from pedestrians, motorists, beach visitors), industrial discharges (in the form of pellets and powders), and garbage management (ill-fitting trash can lids, etc).

Coastal Cleanup Day



The message from CCD 2012 art was that “every piece of trash you remove reveals something beautiful.”

California Coastal Cleanup Day



The first major Coastal Cleanup took place in 1984 along the Oregon Coast. In 1985, California ran its first CCD – all 15 coastal counties participated. 2,500 volunteers turned out for first event.

Each of the 15 coastal counties has been active in Coastal Cleanup Day since 1985 and participation has spread...

California Coastal Cleanup Day



In 2012, 53 of California's 58 Counties participated in the Cleanup, from San Diego County near the Mexico border, all the way to Modoc County which borders Oregon on the north and Nevada on the east, there are cleanup being held along California's coasts, in mountain ranges, and valleys. Over 65,500 people participated!

Coastal Cleanup Day 2013

Results and Accomplishments



- 55,774 volunteers
- 644,320 pounds of debris removed



- Over 2,000 miles of shoreline cleaned



Coastal Cleanup Day

BYO for CCD



In 2013, we'll be continuing with the BYO Campaign, which encourages volunteers to bring reusable cleanup supplies, like buckets, reusable bags, gardening gloves, and a water bottle from home, reducing the overall environmental footprint of the event. Since 2010, when the campaign was launched state-wide, we've reduced the amount of plastic bags needed state-wide by 43,000!

Coastal Cleanup Day



California:

- Trash TMDLs and Permit Regs
Statewide trash policy in development
- Plastic Bag Bans
76 city and counties have initiated bans
- Polystyrene Bans
48 jurisdictions in CA have bans in place



Photo Credit: 5 Gyres Institute



CALIFORNIA
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California Coastal Commission
DATA CARD
Possible Tsunami Debris

Group/Volunteer Name: _____
 City/County: _____
 Beach/Site: _____
 Email Address: _____
 Date: _____ Area Covered (miles): _____
 # of Volunteers x Hours = Total Volunteer Hours _____

Data is being collected across California to assess when debris from the 2011 tsunami in Japan is reaching our shores.
 Keep a count of the debris items you find that might have come from the tsunami using tally marks. When you are finished, enter the item total in the box. Example:
 8 Lumber: IIII
 Do not write words such as "Lots" or "Many." Only numbers are useful data.

Construction Debris:
☐ Lumber: _____
☐ Other building materials: _____

Consumer Debris w/ Japanese Text:
☐ Plastic Bottles: _____
☐ Household Goods/Appliances: _____

Fishing Gear:
☐ Buoys: _____
☐ Rope: _____

ALL SUSPECTED TSUNAMI DEBRIS SHOULD BE REPORTED TO DISASTERDEBRIS@NOAA.GOV

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Miscellaneous/Larger Items: (such as Vessels, Tanks or Cylinders*, 55-gallon Drums*, etc.)
 If possible, please document specific identifying marks such as vessel identification numbers or similar.

☐ Large Styrofoam: _____
☐ Other (please describe): _____
☐ Other (please describe): _____
☐ Other (please describe): _____

*POTENTIAL HAZARDOUS MATERIAL - PLEASE REPORT TO LOCAL HAZMAT AUTHORITY (IF KNOWN) OR CALL 911.



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